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EXAMINER
AGDEPPA, HECTOR A

ART UNIT	PAPER NUMBER
2642	

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
 after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
 Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
 earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 December 2004*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
 closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

 4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

 a)☐ All b)☐ Some * c)☐ None of:

  1.☐ Certified copies of the priority documents have been received.

  2.☐ Certified copies of the priority documents have been received in Application No. _____.

  3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
   application from the International Bureau (PCT Rule 17.2(a)).

 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
  Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

1.   Claims 1, 3, 6 – 10, 28 – 30, 34, and 35 are rejected under 35 U.S.C. 103(a) as

being unpatentable over US 5,812,638 (Muller) in view of US 6,263,066 (Shtivelman et

al.)

As to claims 1, 3, 6 – 10, 30, and 34, Muller teaches a system and method

wherein an incoming call is received at a call center/directory assistance facility and the

caller is prompted with a prompting device 24 to provide audio input relating to the

purpose for the call. The audio input is recorded by recording device 22 and the

recording is provided to an operator/agent for servicing once the recording has been

heard by the operator/agent. If no operator/agent is immediately available, the incoming

call is put into a queue, and the audio input is stored. Once an operator/agent becomes

available, the audio input is provided and the incoming call connected. (Fig. 2, Abstract,

Col. 1, lines 49 – 59, Col. 4, line 11 – Col. 5, line 27)

Also, call processing system 10 includes a queuing system 28 which may be

included in a switch. (Col. 5, lines 20 – 27) Moreover, any system that can receive an

incoming call has a switching device of some sort that actually receives the call. There

is no other way to receive a telephony call. The same is true if the claim is read as a

caller being at a switching device.

Further note that the prompting device 24 and recording device 22 may be

incorporated into an automated directory assistance system (ADAS) comprising a voice

response device. Moreover, Muller teaches that a switch may be used to connect an

operator/agent to the incoming call in the queue. Therefore, because, as seen in Fig. 2,

recording device 22 and prompter 24 are elements separate from the queuing system

28, it is inherent that the incoming call is moved/transferred among those elements.

It is also inherent that some call identifier is associated with the call. Because

the recording may be stored, the only way to relay both the queued incoming call and

the recording to the operator/agent together, at the right time, is to use some identifier to

associate the call and the recording.

Finally, Muller teaches that after the communication of incoming call information

to the operator, the operator and caller may be connected so that the call may be

completed with human-to-human interface. (Col. 8, lines 37 - 44) Therefore, it is clear,

that after a call is routed to a voice response device, the call may be transferred back to
the switch.

What Muller does not teach assigning a unique call identifier to the incoming call.

However, Muller teaches that well known and already used queuing means may
be implemented. Well known queuing methods in the ACD/call center arts include
priority queuing/queuing according to agents' skills, etc. as taught by Shtivelman et al.
(Col. 9, line 34 - Col. 10, line 37, Col. 10, line 57 - Col. 11, line 19 of Shtivelman et al.)
Such well known queuing means queue calls not only in a first-in-first-out basis.
Therefore, assigning a unique identifier to the call or using a unique identifier already
present in the call such as the ANI or caller ID is inherent. There is no way to queue
calls according to priority and skill set among various agents unless this is done.
It would have been obvious for one of ordinary skill in the art at the time the invention
was made because, as discussed, such queuing means are old and well known and
qualify as standard queuing means, which are at least contemplated by Muller.
Moreover, ACD/call center calls routinely monitor calls for agent performance, store
calls for statistical purposes, etc. For many years now, a caller, before being connected
to an agent, will hear an announcement indicating that the call may be recorded for
various these purposes. If no call identifier were assigned to these calls there would be
no way to later retrieve these calls.

As to claim 13, Muller teaches queuing calls with a queuer 28 and routing calls to
agents. (Col. 5, lines 9 – 27 of Muller) Shtivelman et al. teaches the same. (Col. 6,

lines 8 – 21, 30 – 42, Col. 7, line 38 – Col. 8, line 12, Col. 9, lines 18 – 33 of Shtivelman

et al.)

As to claims 14 – 17, see the rejection of claim 1 and also note that it is inherent

that some server or some element having server functionality to act as the call

processor/router. Even if that element is just the switch discussed above, the switch

reads on the claimed generic server with call routing functionality. Muller also teaches

that the information requested from a caller is not only the reason for the call such as a

directory assistance query, i.e., a telephone number, but also can glean, for example, a

language preference and a certain department requested. (Col. 4, lines 35 – 47 of

Muller) See also Col. 8, lines 2 – 3 of Shtivelman et al. wherein it is taught that "any"

relevant information associated with a caller / call record is retrieved. Finally, Muller

teaches that the operator/agent receives the audio input at a device 26 which can

perform speech recognition, has a display device 44, among other features. (Col. 5,

lines 28 – 67 of Muller) Clearly, without some means for playing the recorded

information, an agent would not be able to hear the recorded information. Moreover, a

data device is needed since stored audio is data.

As to claims 28 and 29, see the rejection of claim 1 above and note that any ACD

operates by forwarding calls to an agent. As described above, Muller teaches accepting

an incoming call to an ACD, not a particular agent. Of course, there are times when a

caller is provided a direct dial number to reach a particular agent, but the standard

mode of operation in any ACD is that a caller calls using for example, an 800 number as

anyone who has called a call center or directory assistance knows. After being

connected to the ACD, the call must be forwarded to an actual agent. In other words,

no agent directly answers the call and so connection to an actual agent requires

forwarding the call to the agent when on becomes available. See also Col. 5, lines 9 –

14 of Muller wherein Muller teaches "forwarding" the caller information OR

communicating it to the operator.

As to claim 35, Muller teaches that the system 10 will alter/manipulate the timing

of the audio input recording to match the time it takes the operator/agent to

listen/process the recorded information with the time it takes to play a generic/pre-

recorded message to the caller so that the caller experiences no dead time in optimal

conditions. (Abstract, Col. 5, line 45 – Col. 8, line 36 of Muller) Effectively, the need for

an acknowledgement in the system of Muller is erased or interpreted differently, the

acknowledgement is integrated into the above-discussed timing feature.

However, the above teachings of Muller are merely a choice to present a user-

friendly interface to a caller and such is merely a design choice or preference. It would

have been at the least, obvious, to one of ordinary skill in the art at the time the

invention was made to have required some acknowledgement that the audio input was

heard. The motivation is clear in that there would be no purpose to connecting the

caller to the operator/agent before they had heard the recorded audio input, or the very

purpose of the invention would be defeated.

Remember, that as discussed above, Muller teaches that after communication of

incoming caller information to the operator, the operator and incoming caller may

actually be connected to effect human-to-human communications. Again, unless the

operator has heard the incoming caller's audio input/recorded message there is no point to connecting them. It would completely defeat the purpose of Muller.

2.   Claims 18 – 27, and 31 - 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,812,638 (Muller), in view of US 6,263,066 (Shtivelman et al.), and further in view of US 5,991,390 (Booton).

As to claims 18 - 20, 23, 31, and 32, see the above rejection of claim 1.

Muller and Shtivelman et al. have been discussed above, but what they do not teach is a call center that uses conferencing to connect calls to available operators/agents.

However, many methods of connecting a caller to an operator/agent are known and commonly used methods are that of conferencing. A call center/directory assistance system are also well known as being implemented in a plurality of different environments because the act of connecting a caller to an agent can be thought of as a conference or as being received by the call center. Such a system is taught by Booton. (Col. 10, lines 12 – 26 of Booton)

It would have been obvious for one of ordinary skill in the art at the time the invention was made to have implemented the call processing system of Muller using conferencing because it is, as discussed, a well known and commonly used method. Moreover, the Muller reference itself, recognizes this and teaches that any number of conventional means may be used to connect the caller to the operator/agent. (Col. 8, lines 42 – 43 of Muller) Such was not discussed in Muller because transferring,

sending, conferencing/initiating a separate call, forwarding (as discussed above) are all well known, and all are viable options/methods.

Note that in conferencing, of course to connect the operator/agent to the caller after hearing the recorded audio input is to "bridge" the call.

As to claims 21, 24, and 33, see the rejection of claim 35.

As to claims 22 and 25, as per standard conference calls, the initial connection, which in this case, would be the call at the prompting device 24 and recorder 22, is dropped once the call is bridged between conference participants, i.e., the caller and operator/agent. There is no need for the connection any longer and is a waste of resources besides being the standard method of operation in conference calling.

As to claims 26 and 27, Muller teaches that the incoming call is from the PSTN is inherent or at the least obvious. Muller does not specify that the invention is only to be used in a closed environment such as a PBX. In fact, Muller teaches that any caller can call in and request directory assistance for any city or location which means the callers are at least in some part of the leg, calling from the PSTN. (See the above noted portions of Muller) For this same reason, the voice response device would have to send the call over the PSTN. See also, Col. 10, lines 12 – 26 of Booton and note that when an outgoing call is made to a remote agent, again, that call must be made over the PSTN and if any information is collected from the caller using the voice response device of Muller or the interactive voice response (IVR) taught by Booton, as taught by Muller, that information too must be sent over the PSTN to whatever switching device services the remote agent.

See the rejection of claims 18, 19, 23, and 31 and note that as discussed, any of

a plurality of well known methods of call connection are contemplated by Muller and

especially in the case of call conferencing, it is inherent that the PSTN is used inasmuch

as conferencing systems do not merely operate in a closed environment. The purpose

of conferencing is to connect parties from disparate networks, locations, etc. The only

common network allowing for this connectivity is of course, the PSTN. See also Fig. 1

of Shtivelman et al.

Another motivation for using the PSTN is if remote operators/agents were to be

employed. Providing a dedicated connection from the call center/directory assistance

center to a remote operator/agent is very costly and many systems merely use the

PSTN.

Response to Arguments

3.   Applicant's arguments with respect to claims 1 - 35 have been considered but are

moot in view of the new ground(s) of rejection.

Applicant has misquoted Muller et al. by arguing that Muller et al. merely teaches

prompting an incoming caller to provide information that is "temporarily recorded and

stored. (Col. 4, lines 35 – 61.)" However, Muller actually teaches that the information is

"**at least** temporarily recorded and stored," indicating that applicant assertion that Muller

et al. does not teach nor have reason to assign a unique identifier to a call or recorded

information is incorrect. Any storage beyond temporary storage means that in order to

access such information at a later time, it must be uniquely identified.

As to applicant's argument regarding Shtivelman et al., applicant has asserted

that the reason Muller cannot teach or suggest assigning a unique identifier is because

the system is only a FIFO queuing system. However, although examiner has pointed

out that Shtivelman et al. teaches a system beyond FIFO queuing, i.e., bumping queued

positions, applicant states that this is also not a sufficient teaching or suggestion of

assigning unique identifiers. (Col. 9, lines 35 – 42 of Shtivelman et al.) Applicant

cannot argue both ways. Furthermore, if bumping can occur and queues do not have to

follow a FIFO progression, there is no way for recorded information to be transferred or

associated with a call without some associating identifier, because as seen in Fig. 1 of

Shtivelman et al., the IVR/CTI 22, 25 is a separate element from queuing processor 23

or switch 21 and if a record or information is to be retrieved out of line and remain

associated with a call or call representation in a queue, they must somehow be

associated.

Additionally, Shtivelman et al. teaches that the IVR/CTI 22, 25 records any

information from a caller as a voice mail message and if the caller wishes to disconnect,

the "record" of the voice mail message is used as a virtual call queue position keeper.

This again, reinforces examiner's contention that Shtivelman et al. inherently or at the

least obviously requires the assigning of a unique identifier to an incoming call. Either

the virtual call or voice mail message record or other identifying means has to be

present in order for a call that has been disconnected to be represented in a queue.

Because the call has been disconnected, a recording can no longer simply move with

the queued call. Moreover, the IVR/CTI 22 is a separate system element and when a

record of a voice mail reaches the head of a queue, any stored information is

"retrieved." (Col. 5, line 58 – Col. 6, line 12 of Shtivelman et al.)

As to applicant's argument that Muller and Shtivelman et al. lack motivation to

combine, examiner gave a specific example of call monitoring and recording. Also, both

Muller and Shtivelman et al. teach ACD systems wherein recorded information is used

to assist an agent in properly processing an incoming call. Shitvelman et al. as already

noted teaches allowing both live and virtual calls to be queued. In one sense, Muller

could merely be this situation wherein Shitvelman et al. adds the functionality of

allowing virtual call queuing. Moreover, like Shitvelman et al., Muller also teaches using

separate elements for the recording and replaying of information (elements 22 and 42)

and the queuing system 28 (Fig. 2 of Muller).

Also, whether or not recorded information is stored away / separately from a call

or not is merely a design choice or preference. It is notoriously old and well known in

the computer arts as well as the telephony arts to use pointers or tags or some type of

referencing identifier to associate stored information. This is necessary any time a any

information is stored in a separate database or memory.

Finally, while Shtivelman et al. was used to show ACD systems using the above-

discussed queuing and the assigning of unique identifiers, there may be other

motivations or reasons present in the known art or the references that make Muller and

Shtivelman et al. combinable.

As to applicant's arguments regarding claims 21, 24, 33, and 35, Muller teaches

that the duration during which an operator or agent listens is known and the playback of

certain messages and/or recordings, as well as when the operator or agent and caller
are connected is dependent upon this duration. More specifically, the agent or operator
and caller are only connected after the operator or agent has heard the caller's recorded
information. (Col. 8, lines 37 – 43 of Muller) Therefore, the end of the duration is a de
facto acknowledgement that the operator or agent has heard the recorded information.
The claims do not specify what type of acknowledgment is given nor how, nor by whom.

As to applicant's arguments regarding the switching device, see the discussion
above regarding the IVR/CTI 22, 25 or Shtivelman et al. and also see again Fig. 1 of
Shtivelman et al., elements 21 and 17 which are switches separate from IVR/CTI 22,
25. And therefore, in order to "retrieve" stored information as discussed above, the bi-
directional communication argued as lacking in Muller is clearly present in Shtivelman et
al. Also note that like Shitvelman et al., Muller also teaches using separate elements for
the recording and replaying of information (elements 22 and 42) and the queuing
system 28 (Fig. 2 of Muller).

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent to
applicant's disclosure. US 4,694,483 (Cheung) teaches that as of 1986, it was known in
the telephony arts to monitor agents and incoming calls. US 5,062,103 (Davidson et al.)
and US 5,239,460 (LaRoche) teach monitoring agents for performance and statistical
purposes. US 5,181,236 (LaVallee et al.) teaches that as of 1990 it was known to

monitor agents and incoming calls as well as allow callers to leave recorded messages

so that agents could call-back those callers. US 5,185,782 (Srinivasan) teaches that as

of 1991, it was known to prompt incoming callers for and store information regarding

where and when they would desire a callback if no agents were readily available to

handle their calls.

5.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Hector A. Agdeppa whose telephone number is 571-

272-7480. The examiner can normally be reached on Mon thru Fri 9:30am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ahmad F. Matar can be reached on 571-272-7488. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Hector A. Agdeppa
Examiner
Art Unit 2642

H.A.A.
May 9, 2005

HECTOR A. AGDEPPA
PATENT EXAMINER